WE CLAIM

1. A heat exchanger comprising a plurality of heat transfer plates stacked together such that a plurality of fluid channels are provided therebetween, at least one connecting grid separating the plurality of heat transfer plates into groups of heat transfer plates, and at least one fluid connector in fluid communication with a fluid channel via the connecting grid, the connector comprising a tubular body having an outwardly directed flange formed integrally from a wall of the tubular body to sealingly enable or disable flow into channels between the plates.

2. A heat exchanger as claimed in Claim 1 wherein, the flange is produced integrally with the tubular body by deforming an end portion of the tubular body.

3. A heat exchanger as claimed in Claim 1 wherein, the flange provides a fluid tight connection with a plate of the connecting grid.

4. A heat exchanger as claimed in Claim 1 wherein, the flange provides a fluid tight connection with a structural ring received in an aperture in a plate of the connecting grid.

5. A heat exchanger as claimed in Claim 4 wherein, the structural ring permits the fluid connector to be detached without disassembling the connecting grid.

6. A heat exchanger according to Claim 4 wherein, a set of interchangeable structural rings are provided for selective fitment in the aperture for connecting the connecting grid to different sizes of connectors.

7. A heat exchanger as claimed in Claim 4 wherein, the structural ring provides an opening coaxial with the aperture in the plate of the connecting grid.

8. A heat exchanger as claimed in Claim 4 wherein, the structural ring provides an opening eccentric to the aperture in the plate of the connecting grid.

9. A heat exchanger as claimed in Claim 8 wherein, means is provided to assist rotational alignment of the structural ring during assembly.

10. A heat exchanger as claimed in Claim 9 wherein, the alignment means comprises co-operating formations.

11. A heat exchanger as claimed in Claim 9 wherein, the alignment means comprises marks to assist visual alignment of the structural ring.

12. A heat exchanger as claimed in Claim 4 wherein, the fluid tight connection is provided by a seal between the flange and the structural ring.

13. A heat exchanger as claimed in Claim 12 wherein, the seal comprises an annular sealing ring received in a groove in one of the flange and structural ring.

14. A heat exchanger as claimed in Claim 4 wherein, the structural ring is made of elastomeric material providing the fluid tight connection to the flange.

15. A heat exchanger as claimed in Claim 1 wherein, the connector provides an inlet/outlet connection externally of the heat exchanger.

16. A heat exchanger as claimed in Claim 1 wherein, the connecting grid comprises a pair of plates and the fluid connector provides an inlet/outlet connection to one side of the connecting grid.

17. A heat exchanger as claimed in Claim 16 including a further connector providing an inlet/outlet connection to the other side of the connecting grid.

18. A heat exchanger as claimed in Claim 17 wherein, the connectors overlap to reduce the spacing between the plates of the connecting grid.

19. A heat exchanger as claimed in Claim 1 wherein, the connecting grid comprises a pair of plates and the fluid connector is connected to both plates.

20. A heat exchanger as claimed in Claim 19 wherein, the fluid connector provides an inlet/outlet connection to both sides of the connecting grid.

21. A heat exchanger as claimed in Claim 20 wherein, both sides of the connecting grid are open.

22. A heat exchanger as claimed in Claim 20 wherein, one side of the connecting grid is closed and the other side is open.

23. A heat exchanger as claimed in Claim 22 wherein, said one side of the connecting grid is closed with a blanking disc.

24. A heat exchanger as claimed in Claim 1 wherein, the tubular body is formed from thin gauge tube or pipe having a nominal diameter to wall thickness ratio within the range of 20 to 70.

25. A heat exchanger comprising a plurality of heat transfer plates stacked together face to face such that a plurality of fluid channels are provided therebetween, a connecting grid separating the plurality of heat transfer plates into first and second groups of heat transfer plates, and a fluid connector in fluid communication with at least one fluid channel via the connecting grid, the connector comprising a tubular body having an outwardly directed flange formed integrally from a wall of the tubular body to form a fluid tight connection with the connecting grid.

26. A method of forming a fluid tight connection between a connecting grid of a heat exchanger and a fluid connector comprising the steps of forming a fluid connector by providing a tubular body and deforming an end region of the tubular body to form an outwardly directed flange, and connecting the fluid connector to the connecting grid so that the tubular body is in fluid communication with at least one fluid channel of the heat exchanger via a fluid tight connection of the flange to the connecting grid.

27. A connecting grid for a heat exchanger, the connecting grid having an opening in a plate, and an insert received in the opening for adapting the connecting grid to close the opening or to connect a fluid connector to the heat exchanger.

28. A connecting grid according to Claim 27 wherein, the insert is one of a blanking disc to close the opening and a structural ring to connect the fluid connector to the heat exchanger.

29. A connecting grid according to Claim 28 wherein, a set of interchangeable structural rings are provided for mounting in the opening with each ring having an opening of different size and/or at a different position for converting the opening to the size and/or position of the fluid connector.

30. A set of inserts for use with a connecting grid, each insert having an aperture therein and being interchangeable for selective fitment in an opening in a plate of the connecting grid, wherein the apertures are of different size and/or positions for adapting the connecting grid for connection to a fluid connector.

31. An adapter for detachably attaching a fluid connector to a connecting grid, the adapter comprising an insert adapted to be received in an opening in a plate of the connecting grid whereby a fluid connector can be detachably connected to the connecting grid via the insert.